REMARKS

This Reply is responsive to the Office Action mailed March 25, 2008 (the "Office Action"). Upon entry of the present amendment, claims 1-13, and 20-23 will be pending in the present application, claims 14-19 and 23 having been canceled. Claim 22, while pending, has been withdrawn. Claims 1, 2, 11-13 and 22 are amended.

Support for the claim amendments can be found throughout the specification and claims as originally filed. Claims 1, 2, 12, 13, and 22 have been amended to indicate that the level of BNP, or both BNP and ANF are determined. Claim 11 has been amended to clarify that the two or more samples are obtained at different points in time, and support for this amendment can be found in the specification at least at page 14, lines16-19. No new subject matter has been introduced by making these amendments.

35 USC §112, first paragraph

Written description: The Examiner has rejected claims 1-21 as allegedly failing to comply with the written description requirement (Office Action at pages 3-8). The Examiner states, "[t]he claims are directed to a vast genus of fragments of ANF and BNP, fragments of the combination of ANF and BNP as well as fragments of the mature NBP, fragments of ProBNP, fragments of mature ANG and fragments of ProANF" (Office Action at page 4). After discussing various cases and the Written Description Guidelines, the Examiner states, "[h]ence, only sequences that meet the written description requirement are ANF and BNP" (Office action at page 8).

In view of the present amendment, whereby the term "fragment thereof" has been deleted from claim 1, this ground for rejection should now be withdrawn.

Enablement: Regarding enablement, the Examiner states that the specification *is* enabling "for a method of assisting in the diagnosis of cardiomyopathy, myocarditis or both, that arises as a result of an infection in a patient, comprising, obtaining a sample of a body fluid from the patient, and determining a level of brain natriuretic peptide (BNP) or atrial natriuretic peptide (ANF) or both" (Office Action at page 8).

In view of the present amendment, whereby the term "fragment thereof" has been deleted from claim 1, this ground for rejection should now be withdrawn. The present claims cover subject matter the Examiner has found to be enabled.

35 USC § 112, second paragraph

The Examiner alleges that claim 11 is indefinite because it employs the phrases "over a period of time..." and "more than two samples..." (Office action at page 13). In response, claim 11 has been amended to recite that "two or more samples" are obtained "at different points in time." One of ordinary skill in the art would readily understand what constitutes "two or more samples" and Applicant's method can be carried out with samples obtained at various points in time. No specific interval (*e.g.*, two minutes, two days, *etc...* as proposed by the Examiner) is required. Applicant submits that the amended claim is therefore sufficiently definite.

35 USC § 102

Lerman: Claims 1-3, 8-13 and 17-21 are rejected as allegedly anticipated by Lerman *et al.* (*Lancet* 341:1105-1109, 1993; "Lerman") (Office Action at page 14). Applicant traverses the rejection insofar as the amended claims are concerned.

The present claims have been amended to recite that the level of BNP, or both BNP and ANF, are determined in a sample of body fluid. The claims do not encompass a method wherein only ANF is determined.

In contrast, Lerman discloses a method of determining ANF. Further, Lerman does not disclose a method of assisting in the diagnosis of cardiomyopathy or myocarditis, *which arise as a result on an infection*. Accordingly, Lerman cannot anticipate the subject matter of the amended claims. Applicant respectfully requests that the rejection be withdrawn.

Motwani: Claims 1-3, 8-16 and 20-21 are rejected as allegedly anticipated by Motwani *et al.* (*Lancet* 341:1110-1113, 1993; "Motwani"). Applicant traverses the rejection in view of the amended claims.

Motwani describes studies in patients who have already suffered from myocardial infarction (a heart attack). Motwani's objective is to characterize BNP concentrations after a heart attack (see, for example, page 1109, first column, first paragraph).

The presently pending claims are drawn to methods of diagnosing cardiomyopathy or myocarditis, which arise from infection. Motwani, does not mention cardiomyopathy *or* myocarditis *or* infection, and therefore cannot anticipate the methods now claimed.

Moreover, the presently claimed methods can be used to diagnose a disease early on that may eventually lead to a heart attack. This is fundamentally different from the teachings in the Motwani reference which measured increases in BNP and ANF after a heart attack had already occurred.

A method of assisting in the diagnosis of cardiomyopathy or myocarditis arising from an infection, as claimed in this application, allows therapeutic intervention and monitoring of the effectiveness of a therapy relatively early in the disease, well before the onset of a myocardial infarction (heart attack), or other types of heart failure. The ability for early diagnosis and monitoring of cardiomyopathy and/or myocarditis as a result of an infection represents a significant advance in the field of cardiovascular and infectious diseases medicine and is not described by Motwani. For at least these reasons, Applicant respectfully requests that the rejection of the claims over Motwani be withdrawn.

Puyo: The Examiner has rejected claims 1-3, 6-13, 17 and 19-20 as allegedly anticipated by Puyo *et al.* (*Regulatory Peptides*, 105:139-143; "Puyo") (Office Action at page 16).

The claims of the instant application have been amended to recite that the level of BNP, or both BNP and ANF are determined in the a sample of body fluid. The claims do not encompass a method wherein only ANF is determined. Applicants traverse the rejection in view of the claim amendments.

Puyo relates to a study that examines atrial natriuretic factor (ANF) as a marker of myocardial compromise in Chagas disease. Puyo does not describe any method by which a level of brain natriuretic peptide (BNP), or both BNP and ANF, in a sample of body fluid is

determined. Since the amended claims require this, Puyo does not anticipate the claims, and Applicant respectfully requests that the rejection over Puyo be withdrawn.

Scaglione: Claims 1-3, 6-13, 17, and 19-20 are rejected as allegedly anticipated by Scaglione *et al.* (*J. Parasitol.* 87:923-926; "Scaglione") (Office Action at page 17).

As noted, Applicant has amended the claims of the instant application to indicate that the level of BNP, or both BNP and ANF are determined in a sample of body fluid. The instant claims do not cover a method wherein only ANF is determined. Scaglione does not disclose or suggest a method of determining BNP and thus Scaglione cannot anticipate the subject matter claimed in the instant application. Accordingly, Applicant requests that the rejection be withdrawn.

35 USC §103

Lerman and Marumo I: The Examiner has rejected claims 1-4, 8-13 and 17-21 as allegedly being obvious over Lerman in view of Marumo (*Clinical Chem.* 36/9:1650-1653, 1990; "Marumo I") (Office Action at page 19).

As remarked previously, the claims of the instant application have been amended to recite that the level of BNP, or both BNP and ANF, are determined in the sample of body fluid. The claims do not cover a method wherein only ANF is determined.

Lerman discloses a method of determining ANF. Lerman does not disclose or suggest a method of determining BNP or both BNP and ANF. Further, Lerman does not disclose or suggest a method of assisting in the diagnosis of cardiomyopathy or myocarditis that arises as a result on an infection.

Marumo I does not remedy the deficiencies of Lerman. Specifically, Marumo I does not disclose or suggest a method of determining BNP or both BNP and ANF levels. Further, Marumo I does not disclose or suggest a method of assisting in the diagnosis of cardiomyopathy or myocarditis, which arise as a result of an infection. Accordingly, neither Lerman nor Marumo I, alone or in combination, disclose the subject matter of the amended claims. Applicant requests that the rejection be withdrawn.

Lerman and Marumo II: Claims 1-3, 5, 8-13 and 17-21 are rejected as allegedly obvious over Lerman in view of Marumo (*J. Endocrinol.* 119:127-131, 1988, Abstract only; "Marumo II") (Office Action at page 21).

As remarked previously, the amended claims are drawn to methods in which the level of BNP, or both BNP and ANF, are determined in a sample of body fluid. The claims do not cover a method wherein only ANF is determined.

Lerman discloses a method of determining ANF. Lerman does not disclose or suggest a method of determining BNP or both BNP and ANF. Further, Lerman does not disclose or suggest a method of assisting in the diagnosis of cardiomyopathy or myocarditis, which arise as a result on an infection.

Marumo II does not remedy the deficiencies of Lerman. Specifically, Marumo II does not disclose or suggest a method of determining the level of BNP or the level of both BNP and ANF. Further, Marumo II does not disclose or suggest a method of assisting in the diagnosis of cardiomyopathy or myocarditis, which result from an infection. Accordingly, neither Lerman nor Marumo II, alone or in any combination, disclose the subject matter of the amended claims.

For at least these reasons, Applicant respectfully requests that the rejection be withdrawn.

CONCLUSION

For at least the reasons given above, Applicant requests that the present rejections be withdrawn. The present amendment is made in the interest of advancing prosecution and does not represent any agreement that the original claims are unpatentable on any ground. The amendment is made without prejudice or disclaimer of Applicant's rights.

The Petition for Extension of Time fee is being submitted by deposit account authorization via EFS. Please apply any other charges or credits to deposit account 06-1050, referencing Attorney Docket No. 14703-0002001.

Respectfully submitted,

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